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(54) **Process for packaging compressed garments, furnishing articles, and like, and articles realized by said process**

Verfahren zum Verpacken von komprimierten Kleidungsstücken, Garnierungsartikeln und dergleichen und mittels dieses Verfahrens ermittelte Artikel

Procédé pour emballer des vêtements comprimés, des articles de garniture, et similaire, et articles réalisés avec ce procédé

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## Description

[0001] The present invention concerns a process for packaging compressed garments, furnishing articles and like. The invention also relates to the articles obtained by the process according to the invention.

[0002] The solution proposed according to the invention provides improvements with respect to two specific problems.

[0003] Particularly, we refer to the problems of lack of space always more diffused today for the storing of the products at the factory, with the wholesaler or with the retailer, and for the transport of the products from one place to another.

[0004] The other aspect that is faced up by the present invention refers to the always bigger need of having new and original systems for the promotion of the product, or for the promotion of other products by the advertising or some gadgets.

[0005] Further, the solution according to the present invention allows to obtain a packaging process far more fast with respect to the present packaging processes, particularly avoiding with respect to the traditional process the ironing and enveloping steps.

[0006] In view of the above, the solution suggested according to the present invention allows to realize compressed packaged articles in a very easy way, with a remarkable reduction of the final volume.

[0007] Further, the solution according to the present invention allows to have advertising elements very interesting both for the promotion of the same article and for the promotion of other products and/or services.

[0008] It is therefore specific object of the present invention a process for packaging compressed garments, furnishing articles and like, comprising the subsequent steps of:

- folding the article in a substantially elongated shape;
- rolling up the so folded article;
- introducing the folded and rolled up article in a die of a press;
- subjecting the article to a mechanical pressure;
- extracting the article from the die; and
- providing above and below the compressed article, two paper based material elements;
- packaging the so obtained article employing thermoshrinkable materials.

[0009] Always according to the invention, said packaging step of the article is performed employing thermoshrinkable materials, preferably thermoshrinkable polypropylene.

[0010] Still according to the invention, said mechanical pressure is applied by a hydraulic, oleodynamic, pneumatic, etc. Piston.

[0011] Said die wherein the article is inserted for the pressure can have the desired shape, particularly

rounded, triangular, square, rectangular, etc.

[0012] The present invention also includes the articles obtained by the above process.

[0013] Particularly, said articles can comprise garments, like T-shirts, pants, brassieres, bands, handkerchiefs etc., or towels, sheets, tablecloths, wipers etc.

[0014] Preferably, said article is made by 100% cotton.

[0015] The present invention will be now described, for illustrative but not limitative purposes, according to its preferred embodiments, with particular reference to the enclosed drawings, wherein:

figures 1a-1d show a garment during the various steps of the process according to the invention; and figures 2a-2d respectively show, from the above and laterally, a packaged article according to the invention.

[0016] In the enclosed drawings, reference will be made to a T-shirt, but it is to be understood that the same applies to any other article obtained by the process according to the invention.

[0017] Observing now figures 1a-1d, it can be noted a T-shirt 1 opened (figure 1a), that is then folded (figure 1b), so as to take the substantially elongated shape 2.

[0018] Subsequently, the T-shirt is rolled up (figure 1c), so as to take the shape 3, and introduced within a die (not shown).

[0019] Here the T-shirt is subjected to pressure, until reaching the shape 4 of the figure 1d.

[0020] The amount of the pressure determines the compression of the T-shirt, and consequently the saving of volume.

[0021] After having been extracted from the die, two paperboard discs are applied, the upper one 5 can be seen in figure 2a, and then the article is packaged using thermoshrinkable polypropylene, obtaining the product 6 of figure 2b.

[0022] The paperboard disc 5 realizes a very interesting advertising means since they allow to provide any kind of written message, and can be easily modified.

[0023] Further, they can be a gadget, for example under glasses and like.

## Claims

1. Process for packaging compressed garments, furnishing articles and like, comprising the subsequent steps of:

- folding the article in a substantially elongated shape;
- rolling up the so folded article;
- introducing the folded and rolled up article in a die of a press;
- subjecting the article to a mechanical pressure;
- extracting the article from the die; and
- providing above and below the compressed

article, two paper based material elements;  
 packaging the so obtained article employing  
 thermoshrinkable materials.

2. Process according to claim 1, characterized in that  
 said packaging step is performed employing ther-  
 moshrinkable polypropylene. 5
3. Process according to one of the preceding claims,  
 characterized in that said mechanical pressure is  
 applied by a hydraulic, oleodynamic, pneumatic, etc  
 piston. 10
4. Process according to one of the preceding claims,  
 characterized in that said die wherein the article is  
 inserted for the pressure have a desired shape, par-  
 ticularly rounded, triangular, square, rectangular,  
 etc. 15

#### Patentansprüche

1. Verfahren zum Verpacken von komprimierten Klei-  
 dungsstücken, Gernierungsartikeln und derglei-  
 chen, das folgende Verfahrensschritte enthält:  
 - falten des Artikels in eine wesentlich längliche  
 Form;  
 - einrollen des so gefalteten Artikels;  
 - einführen des gefalteten und eingerollten Arti-  
 kels in eine Form einer Presse;  
 - unterwerfen des Artikels an einen mechani-  
 schen Druck;  
 - ausnehmen des Artikels aus der Presse;  
 - anordnen oberhalb und unterhalb des zusam-  
 mengepressten Artikels zwei papierbasierte  
 Stoffstrücke;  
 - verpacken der so erhaltenen Artikel mit einem  
 wärmeschrumpfenden Stoff. 20
2. Verfahren nach Anspruch 1, dadurch gekennzeich-  
 net, dass der Verpackungsschritt mit der Anwen-  
 dung eines wärmeschrumpfenden Polypropylens  
 durchgeführt wird. 40
3. Verfahren nach einem der vorhergehenden Ansprü-  
 che, dadurch gekennzeichnet, dass der vorge-  
 nannte mechanische Druck durch einen  
 hydraulischen, öldynamischen, pneumatischen und  
 dergleichen Kolben durchgeführt wird. 45
4. Verfahren nach je einem der vorhergehenden  
 Ansprüche, dadurch gekennzeichnet, dass die vor-  
 genannte Form, in die der Artikel zum Zusammen-  
 pressen eingeführt wird, eine gewünschte,  
 insbesondere abgerundete, dreieckige, quadrati-  
 sche, rechteckige und dergleiche Gestalt aufweist. 50 55

#### Revendications

1. Procédé pour emballer des vêtements comprimés,  
 des articles de garnitur et similaire, comprenant les  
 phases suivantes:  
 - replier l'article en une forme sensiblement  
 allongée;  
 - enrouler l'article ainsi replié;  
 - introduire l'article replié et enroulé dans une  
 forme d'une presse;  
 - soumettre l'article à une pression méca-  
 nique;  
 - extraire l'article de la presse; et  
 - placer audessus et audessous de l'article com-  
 primé deux éléments de matériel à base de  
 papier;  
 - emballer l'article ainsi obtenu en utilisant un  
 matériel thermorétractible. 5 10 15 20
2. Procédé selon la revendication 1, caractérisé en ce  
 que ladite phase d'emballage est réalisée en utili-  
 sant un propylène thermorétractible. 20
3. Procédé selon une des revendications précéden-  
 tes, caractérisé en ce que ladite pression méccani-  
 que est appliquée par un piston hydraulique,  
 oléodynamique, pneumatique et similaire. 25 30
4. Procédé selon une des revendications précéden-  
 tes, caractérisé en ce que ladite forme, dans  
 laquelle l'article est introduit pour la compression,  
 a une configuration désirée, en particulier arrondie,  
 triangulaire, carrée, rectangulaire et similaire. 35 40 45 50 55

FIG. 1d



FIG. 1c

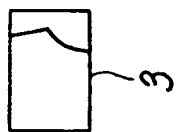


FIG. 2a

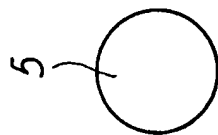


FIG. 2b

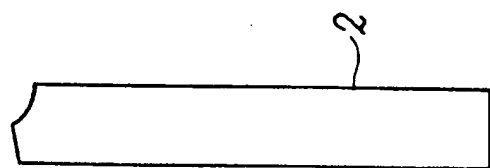


FIG. 1b

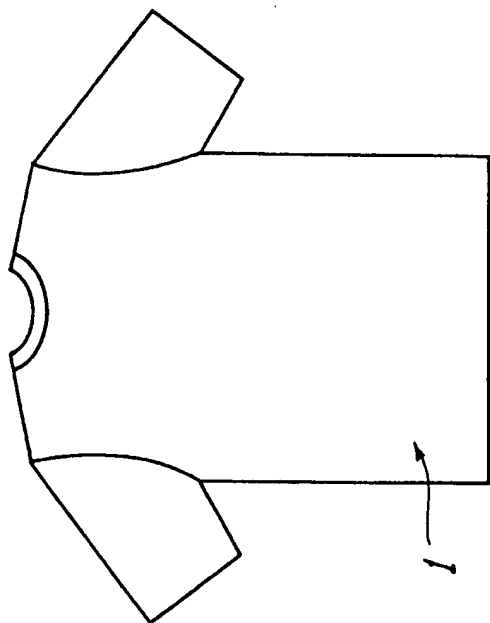


FIG. 1a